

ABSTRACT OF THE DISCLOSURE

Optical-quality polarized parts and methods for manufacturing the optical parts are disclosed. The optical-quality polarized parts comprise a high impact, lightweight, high optical quality polyurethane construct and a polarizer bonded to the construct. The construct may be a lens substrate wherein the polarizer is integrally bonded at or near the front surface of the lens substrate. A sidefill gasket may be used to support and position the polarizer within a mold cavity for reproducibly forming the optical part. The polarizer may comprise a polyethylene terephthalate film or a laminated polyvinyl alcohol film or wafer. The polarized optical part has improved impact resistance over conventional thermoset resin parts, as well as better optical properties than similarly impact-resistant polycarbonate constructs.